

THE SELF-CONCEPT AND INTERPERSONAL FUNCTIONING OF SOUTH AFRICAN GIRLS IN CHILD CARE – A SUGGESTED MODEL

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I, the undersigned hereby declare that the work contained in this assignment, is my own original work, and that I have not previously in its entirety or in part submitted it at any university for a degree.

ABSTRACT

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This study aimed to create an elaborate model that can shed light on the intra- and interpersonal functioning of middle childhood and early adolescent South African girls in child care. Data used included: 1) measures of self-concept that was measured by The Beck Youth Inventories: Self-concept inventory for Youths (Beck, Beck & Jolly, 2001), 2) a qualitative indication of perceived attachment towards a mother figure and 3) biographical data provided by the social workers associated with the children's homes that participated in the study. Participants included 70 girls between the ages of 9 and 14, of which 35 were assigned to the Children's Home Group. The Control Group comprised of the rest of the participants. Regression analysis, correlation measurement and the calculation of the significance of the differences between groups were used to test hypotheses. Results indicated that perceived attachment to a mother figure is a significant mediator of self-concept, but that factors related to age seemed to have the most significant mediating effect during the developmental stages of middle childhood and early adolescence. The results were used to combine and elaborate on existing theories of intra- and interpersonal functioning in order to suggest a model that attempts to explain the functioning of South African girls in child-care in more depth. Implications for these findings are discussed.

OPSOMMING

Die doel van hierdie ondersoek was om 'n gedetailleerde model op te stel wat lig kan werp op die intra- en interpersoonlike funksionering van middel-kinderjarige en adolessente dogters in kindersorg in Suid-Afrika. Die data wat gebruik is, sluit in: 1) meetings van selfkonsep wat gemeet is deur die Beck Youth Inventories: Self-concept inventory for Youths (Beck, Beck & Jolly, 2001), 2) 'n kwalitatiewe indikasie van dogters se persepsie oor die binding tussen hulle en hul onderskeie moeders, asook 3) biografiese data wat verskaf is deur die maatskaplike werkers wat geassosieer was met die kinderhuise wat deelgeneem het. Die deelnemers het bestaan uit 'n groep van 70 dogters tussen die ouderdomme van 9 en 14 jaar. Die helfte van die deelnemers het vanuit die kinderhuise gekom terwyl die res van die deelnemers die kontrolegroep gevorm het. Regressie analises, korrelasie metings en die berekening van die beduidendheid van verskille tussen groepe is gebruik om hipoteses te toets. Die resultate het daarop gedui dat dogters se persepsie van die kwaliteit van die binding tussen hulle en hul moeders, wel 'n beduidende mediator van self-konsep is gedurende middle-kinderjare en adolessensie is, maar dat faktore wat verband hou met ouderdom, die grootste mediërende effek het op self-konsep gedurende hierdie ontwikkelingsfases. Op grond van die resultate is 'n model saamgestel wat 'n voortbouing is op bestaande teorie, maar poog om meer lig te werp op die intra en interpersoonlike funksionering van Suid-Afrikaanse dogters in kindersorg te verduilik. Die implikasies hiervan word bespreek.

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INTRODUCTION

One of the major contributions of psychology during the previous century was to emphasize the importance of the childhood years in human development and relationships through the development of various theories. Theoretical paradigms such as Object Relations, Self Psychology approach, Self Theory and Attachment Theory have helped us understand and realize that pathogenic family factors have a negative influence on children's psychological development. This research project has been done to investigate aspects of attachment in dysfunctional families and the impact this has on the self-concept.

De Wet (2002) conducted a study that compared the interpersonal schemas of adolescents in child care with those of children from intact homes. A surprising and unanticipated finding was that girls were much more negatively influenced – emotionally and interpersonally - by the absence of family security and the presence of familial problems in early childhood and institutional care than the boys. These results confirmed those of Quinton and Rutter (cited in Wolkind & Rutter, 1985) who conducted a study on the long-term effects of institutional upbringing on women. They found a higher incidence of psychosocial problems (for example, the development of personality disorders, problems in intimate relationships, criminal behaviour and disruptive parenting) during adulthood in women who were brought up in institutions compared to women from intact families of origin. Why? De Wet (2002) concluded that her study seems to indicate that girls have a relatively stronger need for emotional support and bonding than boys, which implies that, in comparison to boys, early relationships may play a more pronounced role in the psychosocial development of girls.

As the above findings seem to indicate that attachment plays an important role, the hypothesis is that De Wet's (2002) findings could be explained by using Bowlby's attachment theory. Attachment theory proposes that relationships with early significant others lead to the formation of internal representations of the self and others. These representations determine the nature of our relationships (Bowlby, 1971). In the context of this thesis, the term "attachments" refers to emotional bonds with a significant caregiver (Mash & Wolfe, 2002). According to Ainsworth (cited in Casidy 1999), attachment bonds differ from other relationships as it does not refer to a bond between two people. It is rather a bond that one person has with another who is regarded as wiser and stronger. See Casidy (1999) for an in depth explanation of attachments.

Attachment theory, according to many researchers, is important for the understanding of the process of interpersonal adjustment (Cooper & Shaver, 1998). Attachment theory is used in this thesis as a model that clarifies how interpersonal functioning is mediated by attachment, and how attachment could function as a mediator of interpersonal adjustment.

Attachment and interpersonal functioning

Attachments to early caregivers lead to the construction of internal working models of the self and others. The term "working model" is derived from Cognitive Theory. It refers to cognitive representations or schemas of the main features that a person attributes to his or her world, others and him- or herself (Bowlby, 1979). Two sets of internal working models are constructed from relationships with early attachment figures: internal working models of attachment figures and internal working models of the self.

Internal working models of attachment figures hold a person's expectations of how accessible and responsive he or she can expect attachment figures to be. Internal working models of the self are centred on a person's beliefs about how acceptable or lovable he or she is in the eyes of attachment figures or significant others (Bowlby, 1971).

Bartholomew states that the internal working models of the self and others are two dimensions (cited in Bartholomew & Horowitz, 1991). These dimensions are complex structures that can be evaluated along a positive/negative-continuum. On the positive end of the continuum, the self is seen as completely acceptable to attachment figures and completely lovable. On the negative pole, the self is seen as totally unacceptable to attachment figures and unlovable in every respect. So also, internal working models of others can vary between either the positive pole (the expectation is that others will be absolutely reliable and responsive) or the negative pole (the expectation is that others will be completely unreliable and rejecting).

Each dimension therefore has two opposite poles that can be combined to form four possible attachment patterns (secure, preoccupied, dismissing and fearful) as seen in Figure 1 (Bartholomew & Horowitz, 1991). Attachment patterns are the manifestations of how our internal working models regulate the way we express and regulate our attachment needs. Attachment needs are what we need in order to feel secure in a relationship (Collins & Feeney, 2000). These attachment patterns therefore inform and determine our interpersonal functioning. In the secure attachment pattern (Cell 1, Figure 1) evaluations of both the self and others are positive. The preoccupied pattern (Cell 2, Figure 1) implies that the self is seen as unlovable and in contrast, others are evaluated as positive. A person with such an attachment pattern will try to gain self-acceptance through the acceptance of others. With the dismissing pattern (Cell 3, Figure 1), the self

is seen as lovable and others are seen as unreliable and unresponsive. When this attachment pattern is present, the defence mechanism is to avoid disappointment by avoiding close relationships with others and maintaining a sense of independence. The self is seen as unlovable and others are evaluated as being unreliable and unresponsive when the fearful attachment pattern (Cell 4) has developed. People with this pattern avoid getting hurt by avoiding close relationships even though they might have a desire for such relationships (Bartholomew & Horowitz, 1991). The above explained mechanism is presented visually in Figure 1.

Attachment to their mothers, as perceived by the girls, is used as a measure of attachment in the present study. The reason for this is that mothers are generally regarded as the principle attachment figure for children. Mothers usually have a greater biological investment in the child than the father (Casidy, 1999). Studies have also shown that the relationship with a same sex parent, in comparison to other variables like relationship with the opposite sex parent, is mainly responsible for a positive relationship between self-esteem and the quality of the parent-child relationship (Dickstein & Postner, 1978).

The described model (Figure 1) outlines quite clearly how attachments influence interpersonal functioning, but it still remains too broad, vague and generalized. More specific information about the different aspects of this model needs to be gathered in order to determine how this model applies to and functions with regards to middle childhood and early adolescent girls in South Africa. Fouché and Nieuwoudt (1991) used an attitude-towards-self scale and found that the self-concepts of adolescent girls in child care were more negative than those of teenage girls from intact homes. As stated earlier, working models of the self are constructed out of a set of beliefs – cognitive

representations or self-schemas - that a person uses to evaluate how lovable and acceptable to others he or she is. This corresponds very closely to the notion of “self-concepts”.

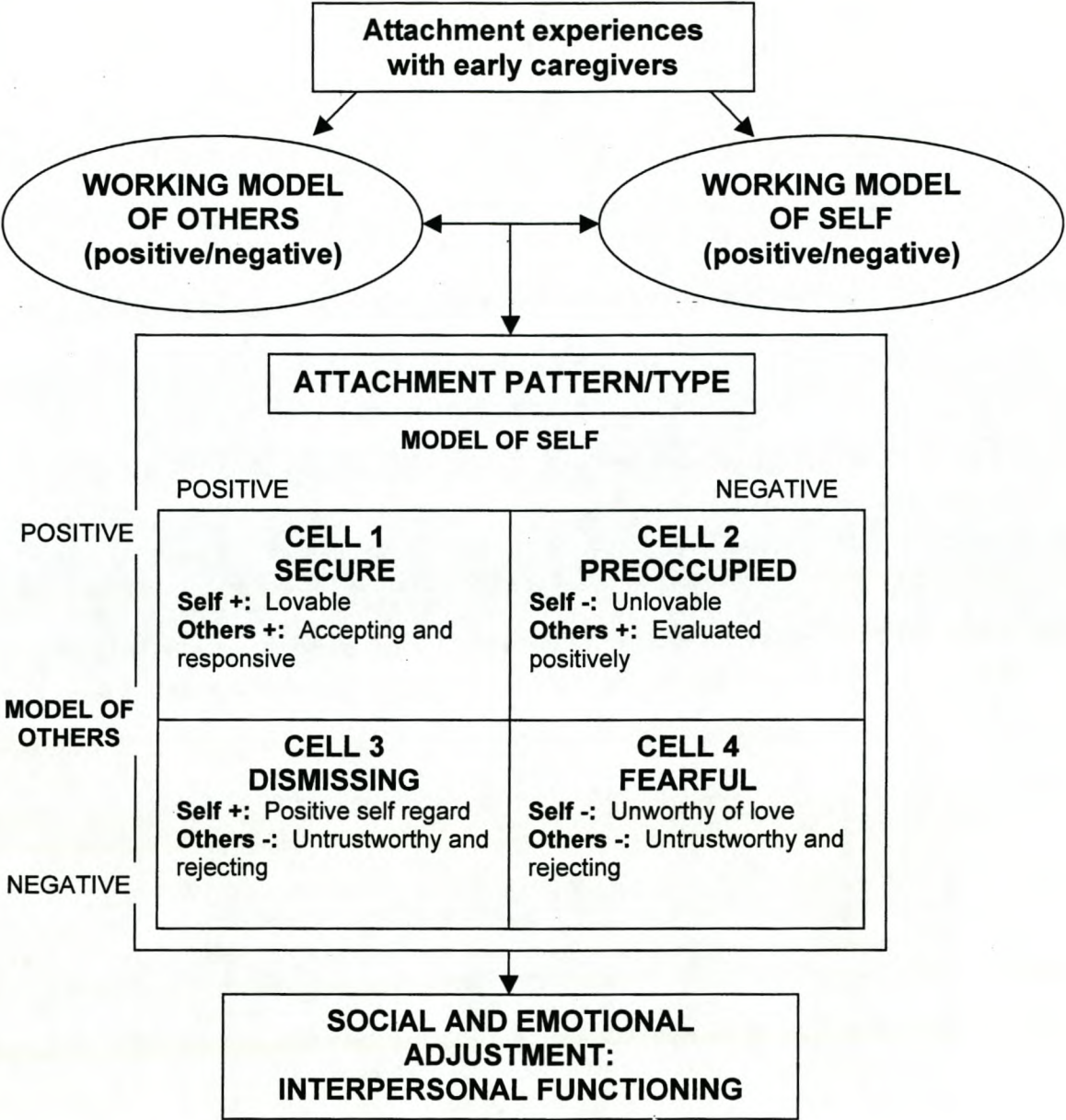


Figure 1: Attachment as a mediator of interpersonal adjustment (adapted from Bartholomew & Horowitz, 1990).

Attachment and the Self-concept

The Self-Theory approach proposes that psychosocial development revolves around the development and maturation of the self-concept. The self-concept is a theory that connects a child's understanding of the nature of the self, the nature of the world and the meaning of the interactions between these two. The self-theory (your theory about yourself) attempts to direct actions in such a way as to make the outcome of the interaction between the self and the world as beneficial as possible (Newman & Newman, 2003).

According to Santrock (2001) the term "self-concept" refers to the perception of the self based on the positive or negative evaluation of specific self-domains. Neisser, Rumelhart, Norman, Markus and Sentis (cited in Markus & Wurf, 1987) describes the self-concept as a system of self-schemas or self-representations that result from past experiences. These experiences would naturally include significant early relationships. Self-schemas are cognitive generalizations about various areas of the self or, in other words, self-domains. Self-schemas filter incoming self-related information from social experiences and then organize and guide its processing (Markus, 1977).

The self-concept is active and dynamic as all these self-representations within the different self-domains are different and some are more important and detailed than others. All of these self-schemas, that form part of the complete self-concept, can never be activated at the same time. That is why we talk about the working self-concept: the self-concept of the moment with its specific activated self-schemas (Markus & Wurf, 1987). Abrahams (1999) found that the ability to have close relationships, academic competence and being romantically appealing, are self-domains of which the self-schemas are particularly activated and gain importance in adolescent girls. Akos and Levitt (2002)

stated that body image is a very important and influential self-concept domain during middle childhood and early adolescence.

As internal working models of the self and self-concept are similar concepts, Figure 2 was constructed to explain where self-concept fits into the attachment model in the mediation of interpersonal functioning.

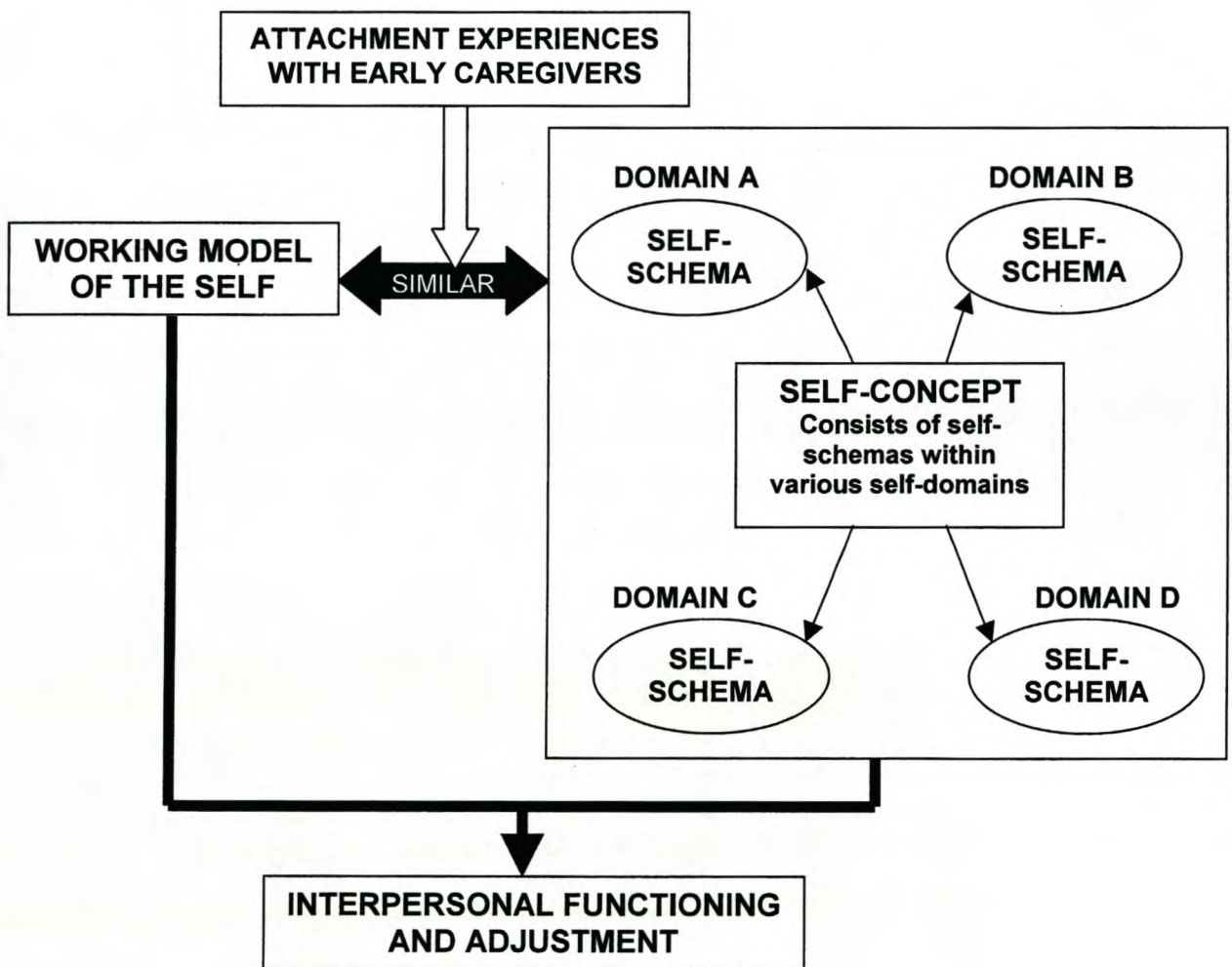


Figure 2: The role of self-concept in attachment theory in the mediation of interpersonal functioning.

Mikulincer (1995) states that past studies of the relationship between attachment types and self-esteem has been restricted since self-esteem is only one global aspect of the

self-concept. A great deal of information is lost if it is not taken into account that the self-concept is much more complex and consists of many domains that cannot be disregarded. In light of this, the Beck Youth Inventory Self-concept Scale (Beck, Beck & Jolly, 2001) was used in this study as it evaluates various self-concept domains by asking a child to indicate to what extent he or she agrees with statements that refer to certain self-domains. This self-concept scale provides a total self-concept score that gives an indication of the quality (whether it is predominantly positive or negative) of a child's concept or impression of him- or herself. A self-concept score can therefore give an indication of whether the working model of the self, of a specific person, has a more positive or negative loading as these two concepts are analogous. This in turn provides information on how a person functions interpersonally (Figure 2).

To create a more informative model that links attachment, self-concept and interpersonal functioning of middle childhood and early adolescent girls in child care, the following question need to be answered: Could there be other factors, besides attachment, that influence the self-concepts and resulting interpersonal functioning of girls in child care?

Other influences on the self-concept

According to Erikson's developmental theory, people pass through developmental stages throughout their lives (Kaplan & Sadock, 1998). Each stage has its own developmental tasks or crises that must be successfully accomplished or mastered in order to manage the next developmental stage successfully. Middle childhood and early adolescence are such developmental stages with their own unique developmental crises. In middle childhood the developmental tasks include skill development. With this comes self-evaluations through comparative assessments. Children evaluate themselves and their self-efficacy by comparing themselves with social norms and the standards of others –

especially peers (Newman & Newman, 2003). According to Erikson, the crises associated with adolescence include the struggle to develop ego-identity, acceptance of appearance and the development of group identification with peers (Kaplan & Sadock, 1998). With both of these developmental phases it is clear that peer interaction becomes increasingly important. These two developmental phases do however differ from each other with regards to intellectual developmental tasks. According to Piaget, middle childhood years are associated with the mastering of concrete operations. Adolescence is characterised by the ability to reason and think abstractly (Kaplan & Sadock, 1998). As the importance of certain developmental tasks, unique to middle childhood and adolescence respectively, heighten, the deduction could be made that the importance of age specific self-concept domains or self-schemas, and therefore self-concept needs, will increase accordingly during these specific phases.

Studies, investigating the association between self-concept and age, have so far delivered varied results. A study by Mboya (1999) that was designed to determine age and gender variations in multiple areas of the self-concepts of South African adolescents, found that age did not have a significant effect on self-concept. A study of South African students by Marjoribanks and Mboya (2001) showed that the self-concepts of younger students were more positive than that of older students. According to Marsh and Sonstroem (quoted in Asci, 2002) most studies that use a multidimensional self-concept scale indicate that self-concept shows a decline in pre-adolescence with age but tends to increase again in late-adolescence and early adulthood. Fox (cited in Maïno, Ninot & Bilard, 2004), found that children from ages 4 to 7 tend to have more positive self-evaluations compared to children of 8 and 9 years old. Self-evaluations tend to become increasingly negative from ages 9 to 14, but seem to become progressively positive from age 15. A study by Maïno, Ninot and Bilard (2004) confirmed previous findings that 15 year olds seem to have more

positive self-concepts than 2 year olds. The question that should therefore be asked, in order to make our proposed model more detailed and valuable, is: does age (and therefore age related factors) have a significant impact on the self-concepts and resulting interpersonal functioning of middle childhood and adolescent South African girls in child care?

In summary, this study aimed to create an elaborate model, as proposed in Figure 2, that can shed light on the intra- and interpersonal functioning of middle childhood and early adolescent South African girls in child care. In order to determine if this model, outlined in Figure 2 is plausible, the aims of this study were the following:

1. To determine whether attachment to mothers influence the self-concepts of South African middle childhood and early adolescent girls in child care.
2. To establish whether attachment have the same influence in girls in childcare and girls from intact homes.
3. To determine the extent of the influence of attachment on self-concept, if it does indeed have a significant influence.
4. To compare the obtained results with the results of the research that supports existing theories of intra- and interpersonal functioning.

Such a model would prove especially invaluable in the understanding of the impact of family chaos, deprivation and or trauma on the self functions of middle childhood and adolescent girls in childcare and in the design of interventions to improve the social and emotional adaptation of these girls. The following hypotheses were therefore investigated:

1. Attachment to a mother figure is a significant mediator of self-concept of middle childhood and early adolescent South African girls.

2. The self-concepts of middle childhood and early adolescent South African girls are not mediated exclusively by attachment to a mother figure.
3. Age is a significant mediator of the self-concept of South African girls in child care.

2. METHOD

2.1 PARTICIPANTS

A total of 98 girls between the ages of 9 and 14 voluntarily participated in this study. They were divided into two groups: a Children's Home Group and a Control Group. Requirements for participation in the study were the following:

- participants had to be between the ages of 9 and 14
- participants had to attend a mainstream school
- participants had to be able to understand, read and speak both the languages Afrikaans and English.

Participants in the Children's Home Group were selected from Durbanville Children's Home (Group A) and The Herberg Children's Home (Group B) in the Western Cape. According to the Child Care Act (Act no. 74, article 15(1) of 1983 (as amended)) these children were placed in children's homes after a Children's Court ruled them as being in need of care. The Control Group (Group C) comprised of 35 girls from intact families. Group C participants came from families where parents were not divorced and the girls attended mainstream schools in the same area.

Table 1 shows the demographic details of the Children's Home Group and the Control Group as a distribution according to age. There was no significant difference between these groups with regards to age ($p < 0,05$).

Table 1

The Demographic Features of the Children's Home Group and Control Group—Distribution according to age (N=70)

Group	Age						Total
	9	10	11	12	13	14	
A: Durbanville Children's Home	0	2	2	4	3	5	16
B: The Herberg Children's Home	1	4	3	2	4	5	19
C: Control Group	1	6	5	6	7	10	35
Total	2	12	10	12	14	20	70

Table 2 shows the distribution of the Children's Home Group according to the age of first removal of the girls from their homes (biological parents).

Table 2

The Demographic Features of the Children's Home Group – Distribution according to age of first removal from home (n=35)

Group	Age of first removal from home														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
A	2	1	0	3	1	2	0	1	1	2	0	2	1	0	16
B	2	0	1	1	0	0	3	3	1	4	1	2	0	1	19
Total	4	1	1	4	1	2	3	4	2	6	1	4	1	1	35

According to Table 2, a total of 57% of the participants in the children's home group were removed from home before the age of 8 years.

Table 3 shows the number of visits between the girls in the Children's Home Group and their biological parents in the year before the commencement of the study (2002 - 2003).

Table 3

The Demographic Features of the Children's Home Group: Distribution according to number of visits received by and made to biological parents in previous year (2002 - 2003) (n=35)

Group	Number of visits in the year of 2002 – 2003										Total
	Unknown	0	2	4	6	8	10	12	24	48	
Visits by parents to child	1	25	2	2	0	0	0	3	1	1	35
Visits by child to parents	0	20	1	2	2	1	2	2	2	3	35

Only 14% of the subjects got at least monthly visits from their parents. Of all of the subjects in the Children's Home Group, just 20% of the subjects visited their parents at least once a month.

Table 4 shows a distribution for the Children's Home Group according to whether a girl has other family or friends that they visit during weekends and holidays. The information for the Groups A and B are shown separately.

Table 4

The Demographic Features of the Children's Home Group: Distribution according to whether the girls have other family or friends that they visit during weekends and holidays (n=35)

Group	Subject visits other family or friends during weekends and holidays		Total
	Yes	No	
A	6	10	16
B	10	9	19
Total	16	19	35

Table 5 expresses the degree of contact that the girls in child care had with relatives and friends in the year prior to the commencement of this study, in terms of percentages.

Table 5

The Demographic Features of the Children's Home Group: An indication of the degree of contact the girls have with relatives and friends (n=35)

Group	Average number of parental visits received per year	Average number of visits to home by child per year	Percentage of children who have other family and friends that they can visit during weekends and holidays
A	7.2*	12.75	37.5%
B	0.63	3.26	53.0%

*This score was calculated by using only the data of 15 of the participants of Group A as the data for one of the participants was not available.

From the demographic data, the deduction can be made that generally, unfavourable home circumstances caused the participants in the Children's Home Group to be removed from their homes at an early age. A significant portion of this group has since had little contact with their family of origin.

Other demographic information is shown in Tables 6 and 7. The distribution, according to the person perceived by the girls in child care as being the primary mother figure, is shown in Table 6. De Wet (personal communication, 20 March 2003) suspects that the presence of sexual abuse might be the greatest risk factor for the development of poor self-concept in girls in child care. Table 7 therefore displays the distribution of girls in the Children's Home Group (Groups A and B respectively) according to whether they have

been sexually abused or not. This information was retrieved by the social worker from the Children's Home records.

Table 6

The Demographic Features of the Children's Home Group – Distribution according to person perceived as the primary mother figure (n=35)

Group	Perceived Primary Mother Figure		Total
	Biological Mother	Mother Substitute	
A	12	4	16
B	11	8	19
Total	23	12	35

Table 7

The Demographic Features of the Children's Home Group – Distribution according to whether girls have been sexually abused (n=35)

Group	Sexually abused		Total
	Yes	No	
A	4	12	16
B	6	13	19
Total	10	25	35

In all, 29% of the participants in the Children's Home Group were reported to have been sexually abused.

2.2 DESIGN

A cross-sectional survey design was used. Participants in the Children's Home Groups were compared with reference to all the obtained variables. The Children's Home Group(s) and Control Group were only compared with regards to self-concept raw scores and attachment score for the biological mother (attachment score: biological mother).

The values of variables were obtained through psychometric measurement and information supplied by the social workers by retrieving the necessary data from the files of the girls in child care. Regression analysis, correlation measurement and the calculation of the significance of the differences between groups were used to test hypotheses.

2.3 MATERIALS

The following three measurement instruments were used to gather information from the participants: 1) a biographical questionnaire; 2) an attachment questionnaire; 3) The Beck Youth Inventories: Self-concept inventory for Youths (Beck et al., 2001).

All the participants had to complete a biographical questionnaire. The biographical questionnaire of the Control Group and the Children's Home Group only differed in that the participants from the children's homes had to indicate who they perceived as being their mother whilst the Control Group participants had to indicate whether their parents were divorced or not as a extra measure to confirm that they did in fact come from intact families.

Kreuzer and Montada (1983) identified seven statements which are descriptive of a daughter's perceived emotional attachment to her mother. These statements were translated and adapted as Likert-scale items in this study to give a quantitatively measurably expression of the participants' perception of the strength of their mother-daughter attachment. A higher score is associated with a more positive perception of attachment with a mother figure. Validity and reliability quotients were not available for this scale.

The Beck Youth Inventories: Self-concept inventory for Youths was used to measure self-concept of the participants (Beck et al., 2001). With this inventory, a higher score is associated with a more positive self-concept. It was decided that only the obtained raw scores would be used in this study as different norm tables were used for participants of ages 7 to 10 and 11 to 14 years of age.

2.4 PROCEDURE

The following actions were taken to compile the participating groups:

2.4.1 Children's Home Group(s)

The following children's homes were approached to take part in this study as these were the homes that participated in the study by De Wet (2003) which investigated the interpersonal schemas of adolescents in child care: Durbanville Children's Home, Andrew Murray House, The Herberg Children's Home and The Van Heerde Children's Home. Permission for this was obtained from the Director of Social Service Programs of the Western and Southern Cape and URCSA (BADISA). Two of these children's homes expressed a willingness to cooperate in this study.

Participants from the children's homes were selected by a social worker attached to each of these children's homes. For ethical reasons, the identities of the participants from the children's homes were not made known to the researcher.

Where participants from the children's home indicated on their biographical questionnaire that a person, other than their biological mother, was perceived as their primary mother figure the participant was assisted in completing an additional attachment questionnaire with regards to this identified person.

2.4.2 Control Group

Testing was done on 60 potential Control Group participants. Permission for this was obtained from the children, their parents and the Western Cape Educational Department. Participation was voluntary and anonymous. The staff of Totius Primary School and D.F. Malan High School was requested to identify students, who in their opinion, came from stable homes and whose parents were not divorced. Participants only qualified for possible inclusion in the Control Group if they indicated, on the biographical questionnaire, that their parents were not divorced. Date of birth was used as a determining factor to select 35 out of the 60 participants for the Control Group through matched random assignment.

2.4.3 Administration of questionnaire

All questionnaires were administered in group sessions containing up to a maximum of 30 participants. There was a registered student clinical psychologist and/or registered psychologist present at each administration to provide individual assistance to participants in the answering of the questionnaires.

3. RESULTS

As stated earlier, the aim of this study was to contribute towards the formulation of a model that can explain the influences of the intra- and interpersonal functioning of middle childhood and early adolescent South African girls in child care. In order to do this the following research questions were formulated: 1) Does attachment have an influence on the self-concept, and by implication the interpersonal functioning, of girls in childcare? 2) To what extent does it have an influence? 3) Does it have the same impact on the self-concepts of girls who are not in child care? 4) Are the obtained results in line with previous research that forms the underpinnings of established theories of intra- and interpersonal functioning?

Table 8 shows the means of the attachment score assigned to the Primary Mother Figure by the girls in the Children's Home Group. The means of the attachment score assigned to the Biological Mother, for the three sub-groups, are shown in Table 9. The means for Self-Concept Raw Score means for the three sub-groups are displayed in Table 10.

Table 8

Means of Attachment Score for the Children's Home Group: Primary Mother Figure (n = 35)

Primary Mother Figure	N	\bar{X}	Std. Err.
Biological Mother	22	41.26	1.69
Mother Substitute	13	40.75	2.34

Table 9

Attachment score Means of the attachment scores assigned to the biological mother of the participants (N = 70)

Group	N	\bar{X}	Std. Err.
A	16	18.81	0.43
B	19	19.11	0.39
C	35	20.89	0.29

Table 10

Self-concept: raw score means for the three sub-groups (N = 70)

Group	N	\bar{X}	Std. Err.
A	16	40.25	1.92
B	19	41.79	1.76
C	35	44.54	1.30

Hypothesis 1: Attachment to a mother figure is a significant mediator of self-concept of South African girls.

A stepwise regression analysis was done on 34 of the subjects of Groups A and B to determine the greatest predictors of self-concept for adolescent girls in child care. It was not possible to do the regression analysis on the whole population (N = 70) as the Control Group only serves as the control for the following variables: attachment scores for biological mothers and self-concept. Variables incorporated in this regression analysis, included: 1) whether the participant was sexually abused or not, 2) age of the participant, 3) age of first official removal from home, 4) number of foster placements, 5) number of placements in children's homes, parental visits received per year, 6) visits to biological parents per year, 7) whether the participant went home for holidays, 8)

attachment score for the primary mother figure, 9) attachment score for the real mother, 10) whether the participant had other family and friends to visit. The data of one of the participants were omitted as the number of visits that this participant received from her biological parents per year was unknown.

This analysis indicated that attachment score for biological mother, age and age of first official removal from home were the greatest predicting variables with $R^2 = 0.21$. These variables therefore account for 21.4% of the variation in self-concept of the Children's Home Group. Table 11 gives a summary of the three variables in this study that have the greatest predictive value for self-concept as calculated in a stepwise regression analysis.

Table 11

Regression summary: Attachment Score: Biological Mother as significant predictor for self-concept (n =34)

Variables	B	Standard Error of B	Beta	t(30)	P
* Attachment Score: Biological Mother	1.15	0.55	0.34	2.09	0.05
*Age	-1.88	0.89	-0.36	-2.12	0.04
Age of first official removal from home	0.50	0.36	0.24	1.41	0.17

*Variables that are significant predictors of self-concept.

Attachment score assigned to the biological mother is therefore one of the two variables in this study that contributes significantly to self-concept [$t(30) = 2.09$: $p < 0,05$].

Attachment to the biological mother is therefore a significant mediator in the self-concepts of young girls in child care.

Attachment score assigned to a mother substitute was not included in this study as the limited scores available for this variable would have caused an unrepresentative regression analysis through only using a few participants of the sample. This would have caused results to be less representative of the population. However, a one-way ANOVA was done to compare attachment scores assigned to biological mothers with attachment scores assigned to mother substitutes. The results of one-way ANOVA analysis, where the means of the attachment scores for primary mother figures of the girls in child care were compared, is displayed in Table 12.

Table 12

One-way ANOVA between attachment scores for Primary Mother Figures as assigned by the participants of the Children's Home Group (n = 35).

Source	Df	SS	MS	F	P
Primary Mother figure	1	2.06	2.06	0.03	0.86
Error	33	2164.60	65.60		
Total	34	2166.66	67.66		

According to the F-test [$F(1, 33) = 0.03$; $p = 0.86$], there was no significant difference between the means of the groups. In other words, there was no significant difference between perceived attachment with a biological mother or a mother substitute. From this it can be deduced that attachment to a mother figure, not necessarily only the biological mother, has a significant influence on the self-concepts of girls in child care.

Hypothesis 2: The self-concepts of girls are not mediated exclusively by attachment to a mother figure

Table 13 shows a one-way analysis of variance that compares the means of attachment scores assigned to biological mothers in Groups A, B and C.

Table 13

One-way ANOVA between the three sub-groups for Attachment Score: Biological Mother (N = 70).

Source	Df	SS	MS	F	P
Institution	2	64.87	32.44	10.99	0.000075
Error	67	197.77	2.95		
Total	69	262.64	35.39		

According to the F-test [$F(2, 67) = 10.989$; $p = 0.000075$], there were significant differences between the means of the groups. Attachment score for biological mother is therefore significantly different for the three sub-groups ($p < 0.05$). Bonferoni tests indicated that the mean of C is significantly higher than the means for A and B ($p < 0.05$). The means for A and B do not differ significantly ($p > 0.05$). These results were confirmed by doing a non-parametric Kruskal-Wallis- and Bootstrap analyses (Efron & Tribshirani, 1993).

Table 14 displays the results of the one-way analysis of variance where the means of the self-concept raw scores, of each of the three groups (groups A, B and C) were compared.

Table 14

One-way ANOVA of Raw Scores of the sub-groups for Self-concept: Raw (N = 70)

Source	Df	SS	MS	F	P
Institution	2	229.70	114.90	1.96	0.15
Error	67	3934.80	58.70		
Total	69	4164.50	173.60		

According to the F-test [$F(2, 67) = 1.9560$; $p = 0.15$], there were no significant differences between the means of the groups. This indicates that there is no significant difference between the self-concepts of the various groups.

The hypothesis is proven correct due to the fact that there is no significant difference in the self-concepts of adolescent girls in child care compared to the self-concepts of the Control Group even though attachment scores, assigned to biological mothers (attachment score: biological mother) differs significantly between these abovenamed groups.

Hypothesis 3: Age is a significant mediator of the self-concept of South African girls in child care.

Table 15 shows the results of the regression analysis with regards of age as a significant predictor of the self-concepts of middle childhood and pre-adolescent South African girls in child care.

Table 15

Regression summary: Age as significant predictor of self-concept (n =34)

Variables	B	Standard Error of B	Beta	t(30)	P
Age	-1.88	0.89	-0.36	-2.12	0.04

The hypothesis could not be rejected. These results furthermore indicate that age is a greater predictor of self-concept than Attachment Score: Biological Mother [$\beta_{\text{Age}} (-0.36) > \beta_{\text{Attachment Score for Biological Mother}} (0.34)$]. The value of β for age (-0.36, Table 5) is also negative, which indicates that there is a negative relationship between this predictor and the outcome, which is an indication thereof that self-concept decreases with an increase in age and vice versa.

4. DISCUSSION

It appears as if the model, as proposed in Figure 2, is acceptable with regards to the suggestion that working models of the self and the self-concept are similar concepts as the results indicate that attachment to the biological mother does indeed also have a significant influence on the self-concepts of middle childhood and early adolescent girls in child care. Furthermore, there was no significant difference between attachment scores assigned to biological mothers and mother substitutes by the various participants from the children's homes. It could consequently be inferred that attachment does not necessarily have to be with the biological mother in order to have a significant influence on the self-concept of the child. According to Bowlby (1971) a child will approach a person as he or she would approach his or her biological mother if this mother substitute acts in a motherly way - in other words, if she is engaging, available and responsive to the child's signals. Hypothesis 1 could therefore not be rejected in this study.

Although attachment scores for biological mothers were significantly higher for the Control Group (indicating a more positively perceived attachment to the biological mother) than for the group of middle childhood and adolescent girls in child care, there was no significant difference in the means of the self-concepts of the respective sub-groups(Control Group, Group A and Group B). The above implies that hypothesis 2, that attachment to a mother figure is an important, but not the sole and primary predictor of self-concept (and consequently interpersonal functioning) in girls of middle childhood and pre-adolescence, could not be rejected. It appears as if the strength of perceived attachment to a mother figure, as mediator of self-concept, decreases during the middle childhood and adolescent developmental stage.

Furthermore, the regression analysis showed that age was the greatest predictor of self-concept scores of adolescent girls in child care and that self-concept decreases with an increase in age. These results confirm Hypothesis 3.

A Coopersmith study (cited in Santrock, 2001) concluded that although supportive relationships with parents have a strong influence on self-esteem, peer judgment gains increased importance in middle childhood and adolescence. In middle childhood children need to develop friendships. The focus is also on self-evaluation as the emphasis is on skill learning: children constantly compare their performance to their internalized goals and feedback received from peers and others. Young adolescents are constantly evaluating themselves within the context of their peer group. They are highly sensitive to the opinions of their peers (Newman & Newman, 2003). Santrock (2001) also states that strong predictors of self-esteem in adolescents are: 1) how they perceive their own physical appearance and 2) their perception of peer acceptance. According to Mash and Wolfe (2002), failure in either of these areas increases vulnerability for depression and resulting low self-esteem.

The increase in the importance of peer feedback and acceptance, as a child grows older, could explain why the self-concepts scores between the Control Group and girls living in children's homes did not differ significantly and why the girls from the Control Group did not necessarily have a higher self-concept just because they are still living with both parents.

The implication of these findings is that the proposed model of the mediators of interpersonal functioning, especially the role of attachment in this model (as displayed in Figure 2), should be modified. The revised model is shown in Figure 3.

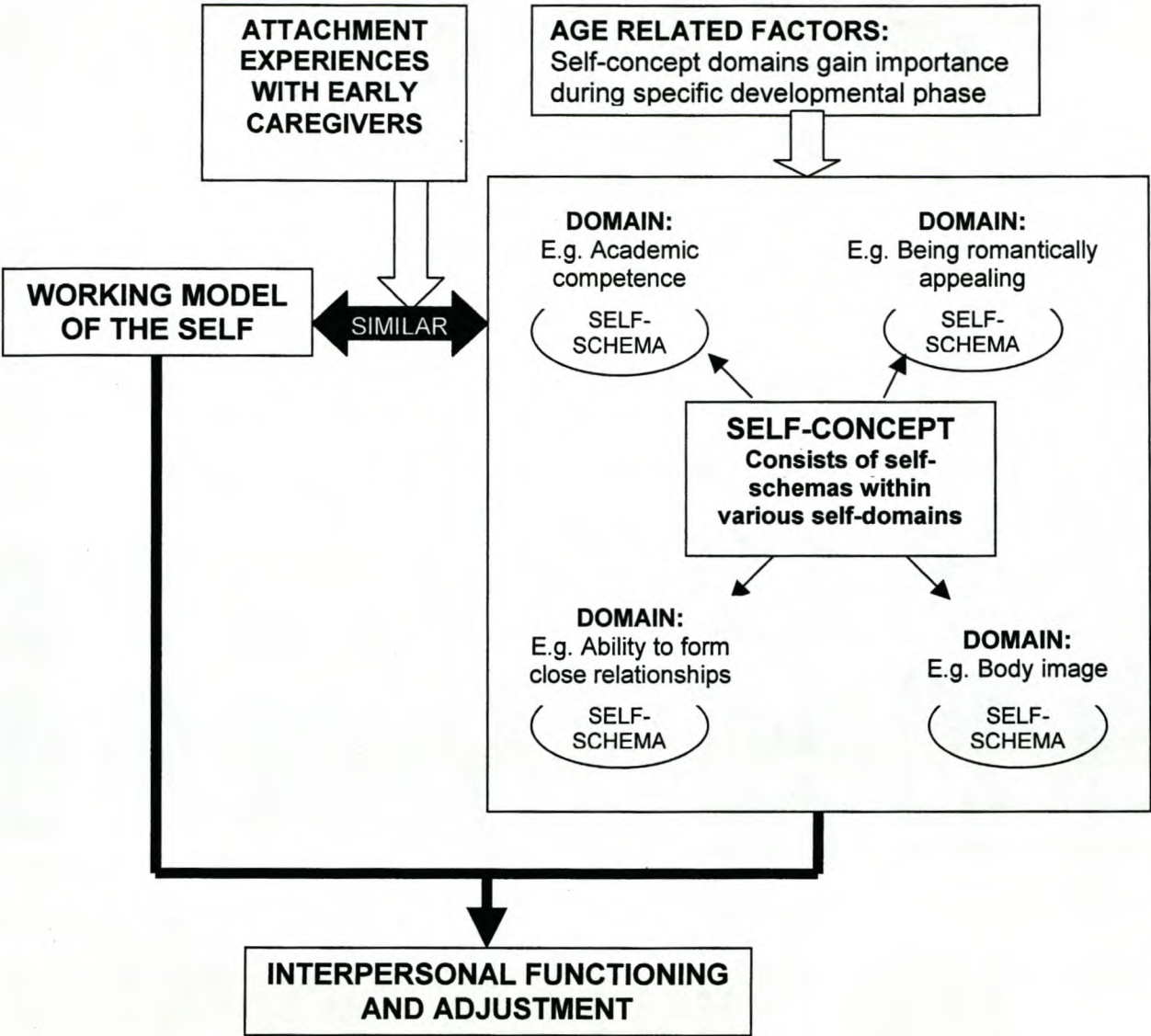


Figure 3: Revised model of the factors mediating interpersonal functioning and adjustment in middle-childhood and early adolescent girls in childcare. (Examples of possible important self-domains are provided in this illustration)

The proposed model implies that there is merit in De Wet’s (2001) hypothesis that her study indicated that the difference in interpersonal adjustment between middle childhood and early adolescent girls and boys in childcare can be ascribed to girls’ stronger need for emotional bonding and support. This study indicated that emotional bonding and support, by means of attachment with a mother figure, does have a significant influence

on the self-concepts of girls in middle childhood and early adolescence. The model does however propose that there are other factors – specifically related to age - at play that seem to have an even more significant mediating effect on self-concept and therefore interpersonal functioning.

Studies of American and Australian adolescents found gender differences in a number of aspects of self-concept (O'Dea & Abraham, 1999). Marsh (cited in O'Dea & Abraham, 1999) found that males had higher self-ratings in the following self-domains: 1) physical appearance, 2) physical ability, 3) mathematics, 4) emotional stability, 5) problem solving and 6) general self-esteem. Females scored more positively with regards to self-domains such as: 1) verbal and reading competency, 2) school related self-concept, 3) trustworthiness and 4) spiritual and moral values. It is therefore possible that gender predisposes a child to be more vulnerable, with regards to specific self-domains, during middle childhood and early adolescence. The differences in these vulnerabilities between the different genders, could explain the differences in interpersonal adjustment that De Wet found. This possibility needs to be researched further.

Although the difference was not significant, the mean of the self-concept scores of the subjects in the Control Group was greater than the mean of the self-concept scores of the group of participants in child care. In the light of the fact that, as stated earlier, early relationships have a significant impact on psychological development, it could be suggested that the quality of the attachment to a mother figure might influence how vulnerable the self-concepts of middle childhood and early adolescent girls would be to age related factors. Attachment plays a primary role in the construction of internal working models and the mediation of interpersonal functioning from birth for evolutionary and survival purposes (Cassidy, 1999). This model proposes that the influence of

attachment on internal working models of the self, and by implication the self-concept as well as interpersonal functioning, seems to decrease with age. Conversely, the strength of other age related factors that act as mediators of interpersonal functioning, increase with age. Attachment is therefore the first building block in the development of internal working models of the self, self-concept and the nature of interpersonal functioning. If this building block is defective it might cause the self-concepts of adolescent girls to be more vulnerable to age related factors.

This study has confirmed that, during the middle childhood, there is a decline in self-concept with an increase in age. The proposed model allows for the hypothesis that attachment to a mother figure could determine how big this decline will be in each individual with added age related stressors. Attachment to a mother figure could therefore be a predictor of how ably a girl in her middle childhood or adolescence would cope with the demands of these developmental stages of adolescence. In order to successfully complete the emotional and social tasks of these developmental phases, a close supportive relationship between girls and their mother figures is advisable. However, social demands, amongst others, seem to have a significant impact on psychological functioning during middle childhood and early adolescence. Further research on this is suggested.

This study also shows that attachment with a mother figure does not have to be the only defence against negative self-concepts for girls in child care. Self-concepts can be improved by strengthening other self-concept domains which are especially important during adolescence. Strengthening these domains will serve as extra lines of defence and create opportunities for the development of effective coping strategies against the demands on self-concept during middle childhood and adolescence.

Due to the small sample size, results obtained in this study are preliminary. It does, however, present a starting point for a better understanding of the emotional needs and the use of possible services to promote the mental health of adolescent girls in child care. If this research is therefore continued and duplicated, it is recommended that a bigger sample of participants from more venues is used in order to generalize to the general population of girls in child care.

A further recommendation is that in future studies the Control Group should match the experimental group on more domains in order to improve the reliability of results. More communal variables between the Control Group and child care group must therefore be identified so that comparisons could take place on more levels so that a more accurate picture of the compared functioning of the adolescent girls in the various experimental groups can be obtained.

Suggestions for further research include comparing girls from different developmental stages with regards to the relationship between attachment and self-concept domains. The strength of the relationships between these domains must also be researched.

5. CONCLUSION

Various factors serve as mediating factors in the self-concept of adolescent girls in child care. Although attachment to a mother figure was identified as an important and significant mediator in the self-concept that could act as a protective factor to help girls face their developmental challenges, it appears as if the importance of attachment decreases with age. Other factors, that specifically influence self-concept and its domains, were shown to gain importance with age.

The hypothesis is that such factors seem to be age specific and coincides with the developmental phase of the child. According to the model that was used, this implies that social and emotional adaptation and interpersonal functioning is more affected by age related factors, rather than attachment, as a girl progresses through middle childhood and early adolescence.

This implies that the interpersonal functioning of girls in child care cannot be improved by just correcting faulty attachment experiences. Attachments are not the only way to modify internal working models and improve self-concept (which is a measure or indicator of the structure of internal working models of the self). These results indicate that as children age, internal working models should also be modified by improving self-concept through focusing on the improvement of self-concept domains that are specifically salient during a specific developmental phase.

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